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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/199,447	11/25/98	FUJITA	Y	XA-8993

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EXAMINER	
JOHNSON, J	
ART UNIT	**PAPER NUMBER**
1764	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/199,447	Applicant(s) Fujita et al.
	Examiner J. Johnson	Group Art Unit 1764

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Response

A SHORTENED STATUTORY PERIOD FOR RESPONSE IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a response be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for response specified above is less than thirty (30) days, a response within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for response is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to respond within the set or extended period for response will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 12/13/99.

☒ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above claim(s)_____ is/are withdrawn from consideration.

☐ Claim(s)_____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s)_____ is/are objected to.

☐ Claim(s)_____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on_____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on_____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number)_____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received:_____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of References Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other_____

Office Action Summary

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi et al.

Shiraishi et al, U.S. Patent 5,656,582, teach a rust preventive lubricating oil which prevents bearings from rusting without adversely affecting various characteristics of bearings such as torque, sound and life (column 1, lines 5-9). The rust preventive oil contains a rust-preventive agent and a base oil as essential components. This base oil must contain an ether oil (column 1, lines 57-60). Viscosity of the ether oil per se and ether oil-containing mixtures used as a base oil is usually 10-100 mm^2/s @ 40°C (column 3, lines 8-11). The rust preventive lubricating oil can contain an oiliness improver together with the rust-preventive agent and the base oil. The oiliness improver further improves lubricating performances such as wear resistance. The oiliness improvers include, for example, higher alcohols, carboxylic acids such as oleic acid, amines such as stearylamine, organomolybdenum compounds such as molybdenum dithiophosphate, phosphate esters such as tricresyl phosphate, phosphor-based and sulfur-based additives and mixtures of them such as a mixture of oleic acid and tricresyl phosphate . (Column 3, lines 15-26). The rust preventive lubricating oils are suitably used for bearings provided with an outer ring having an outer ring raceway track on its inner periphery, an inner ring having an inner raceway track on its

outer periphery, a plurality of balls provided between the outer ring track and the inner ring track and a cage which holds the balls so that they can freely roll, especially small bearings such as sealed ball bearings (column 4, lines 7-14).

While Shiraishi et al differ from the instant claims in not specifically disclosing a lubricating oil containing an extreme pressure agent and a corrosion preventing agent, the oiliness improvers of Shiraishi et al include the instantly claimed extreme pressure agents and corrosion preventing agents. Accordingly, applicants roller bearing would have been obvious to one having ordinary skill in the art at the time the invention was made as being encompassed by the teachings of Shiraishi et al.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi et al as applied to claims 1 and 12-14 above, and further in view of Suzuki et al.

Shiraishi et al is relied on as cited above, but differs from claim 15 in not disclosing molybdenum dithiocarbamate as a suitable oiliness additive.

Suzuki et al, U.S. Patent 5,640,769, is relied on as teaching roller bearing as taught by Shiraishi et al wherein said roller bearing contains a lubricating oil composition comprising an oiliness agent. The oiliness agents include, *inter alia*, organomolybdenum compounds such as molybdenum dithiocarbamate and molybdenum dithiophosphate (column 8, lines 46-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use molybdenum dithiocarbamate as the oiliness agent in a lubricating oil for a bearing as taught by Shiraishi et al because Shiraishi et al teach that organomolybdenum

compounds such as molybdenum dithiophosphate may be used as oiliness agents and Suzuki et al teach the equivalent use of molybdenum dithiophosphates and molybdenum dithiocarbamates in bearing oil compositions.

Claims 2-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiraishi et al and Suzuki et al as applied to claims 1 and 12-15 above, and further in view of Noguchi et al and Dunfield et al.

Shiraishi et al and Suzuki et al are relied on as cited above but differ from the instant claims in not disclosing that the inner and outer races are made of steel and the roller bearings are made of ceramics or "super-hard" alloy.

Noguchi et al, U.S. Patent 5,882,122, teach that ball bearings made of ceramic or a hard metal. having a surface hardness of Hv 950-Hv 1,800 (column 9, lines 34-38).

Dunfield et al, U.S. Patent 5,844,748, teach that ball bearings typically having inner and outer races made of steel (column 2, lines 5-6). Ceramic bearing balls are taught in column 8, line 43 to column 9, line 27.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the rust preventive lubricating oil as taught by Shiraishi et al and Suzuki et al in a roller bearing wherein said roller bearing has inner and outer races made of steel and bearing balls made of ceramic or "super-hard" alloy as taught by Noguchi et al and Dunfield et al.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-15 are confusing. Specifically, the recitation that "said cage and said rolling elements, and a grease is enclosed" is unclear. In claims 6, 11 and 13, the term "zinc diocarbamate" is incorrect. In claim 15, the term " dithiocarbomate" is incorrect. Additionally, claim 15 incorrect recites that the molybdenum dithiocarbomate is a corrosion preventing agent.

Applicant's arguments filed December 13, 1999 have been fully considered but they are not persuasive.

Applicants argue

> the aforementioned patents fail to teach or suggest the use of an oil film of lubricating oil having the stated dynamic viscosity as well as containing an extreme pressure agent and a corrosion preventing agent as set forth in Claim 1. (REMARKS, page 11).

Applicants' argument lacks merit.

As noted above, Shiraishi et al teach the addition of an oiliness improver and mixtures thereof to their lubricating composition. The oiliness improvers of Shiraishi et al include the instantly claimed extreme pressure agents and corrosion preventing agents. Accordingly, applicants claimed roller bearing would have been obvious to one having ordinary skill in the art at the time the invention was made as being encompassed by the teachings of Shiraishi et al.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (703) 308-2515.

JERRY D. JOHNSON
PRIMARY EXAMINER
GROUP 1100

JDJ
March 21, 2000